

Women and Girls in Science, Technology & Engineering

United States Department of State

Office of the Senior Coordinator for
International Women's Issues

Office of International Women's Issues

- ▶ Coordinating all foreign policy issues related to the political, economic, and social advancement of women in democracy worldwide.
- ▶ Recognizing the key to democracy is the full and equal participation of women in all realms of society
- ▶ Promote greater awareness of gender-based violence and discrimination,
- ▶ Ensure that women's human rights are considered along with, not segregated from, other human rights in the development of U.S. foreign policy.

Challenges Facing Women Worldwide

- ▶ Gender-based violence (GBV)
 - Problem every country
- ▶ Property/Inheritance Rights
 - Contributes to subordination of women
- ▶ HIV/AIDS
 - Increased risk due to GBV

Power of S&T

- ▶ Society is becoming more science and technology dependent
- ▶ Creates innovations in public health, environment, communication, and transportation.
- ▶ Allows individuals to develop their skills and talent.
- ▶ Jobs in Science and Technology provide the highest incomes

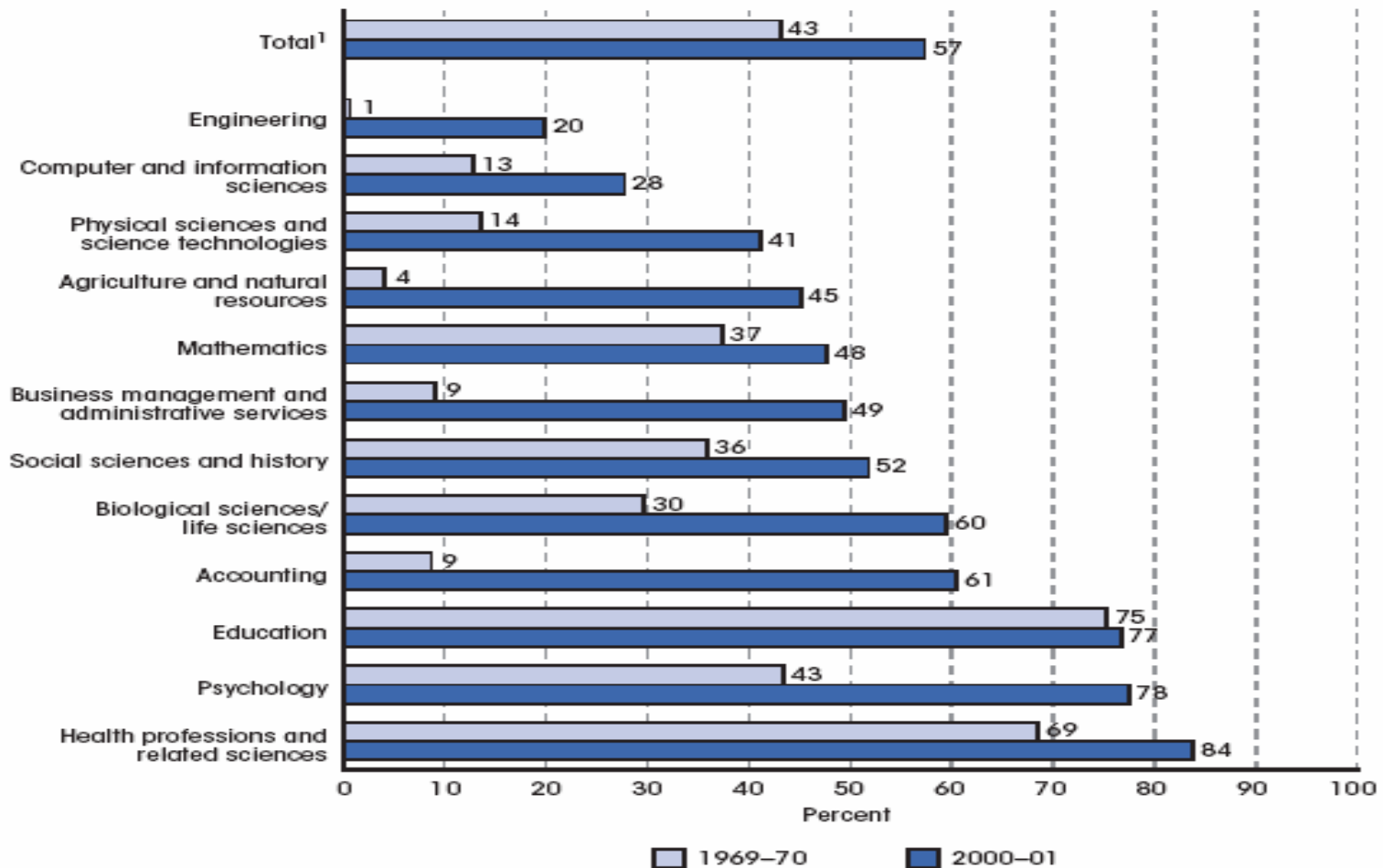
Benefits of Women's Involvement in S&T

- ▶ No society can realize its potential when half its population lacks a strong voice
- ▶ Strengthens economy - competitiveness in global economy
- ▶ Strengthens democracy - increases women's equality

U.S. Statistics on Women in S & T

- ▶ S&E bachelor's degrees awarded to women has increased every year since 1966 (excluding 1988).
- ▶ Women earn substantially more bachelor's degrees in non-S&E fields than men.
- ▶ Women 14% - 41% S&T

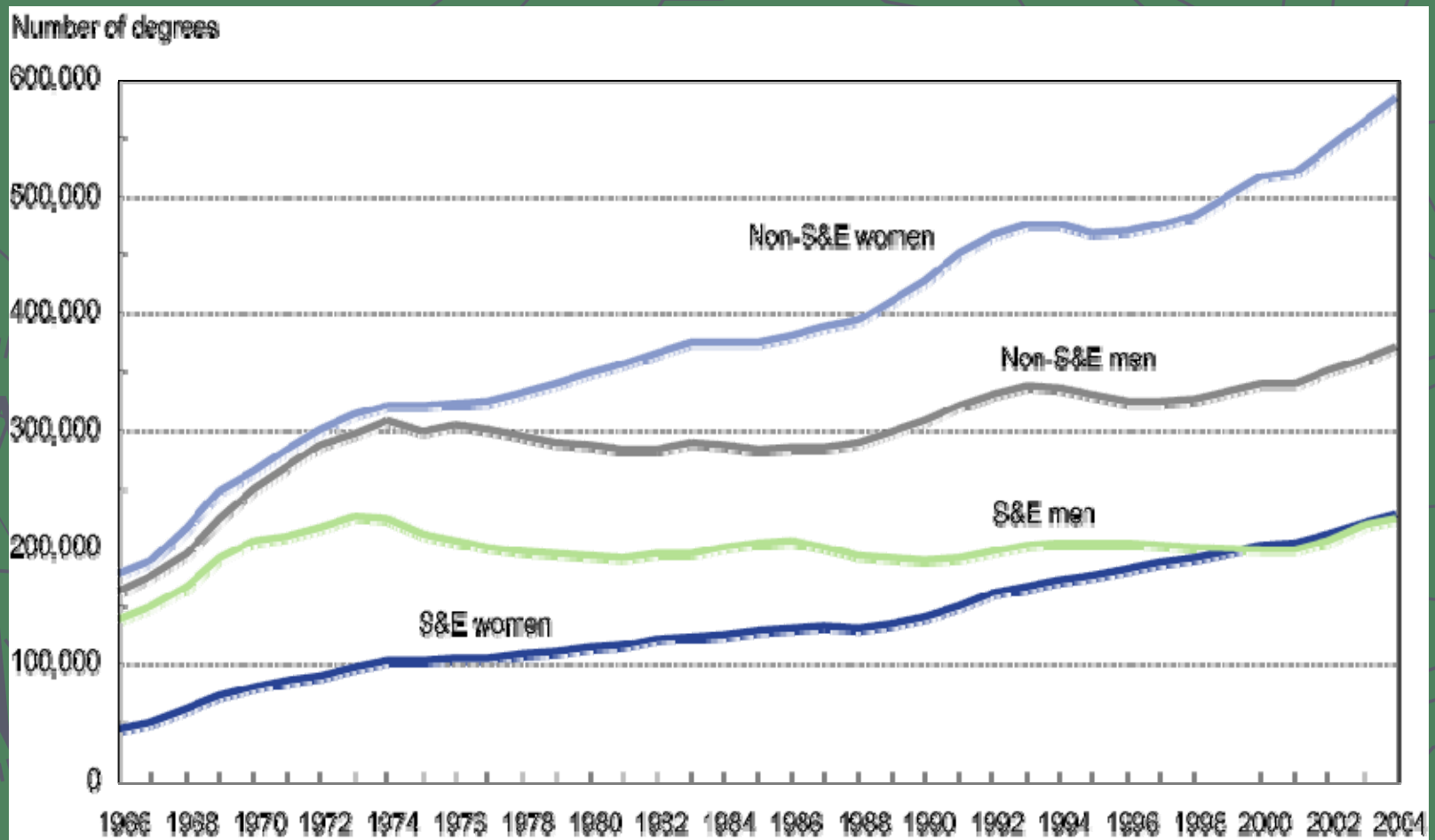
Percent of Bachelor's degrees conferred to females 1969-70 & 2000-01



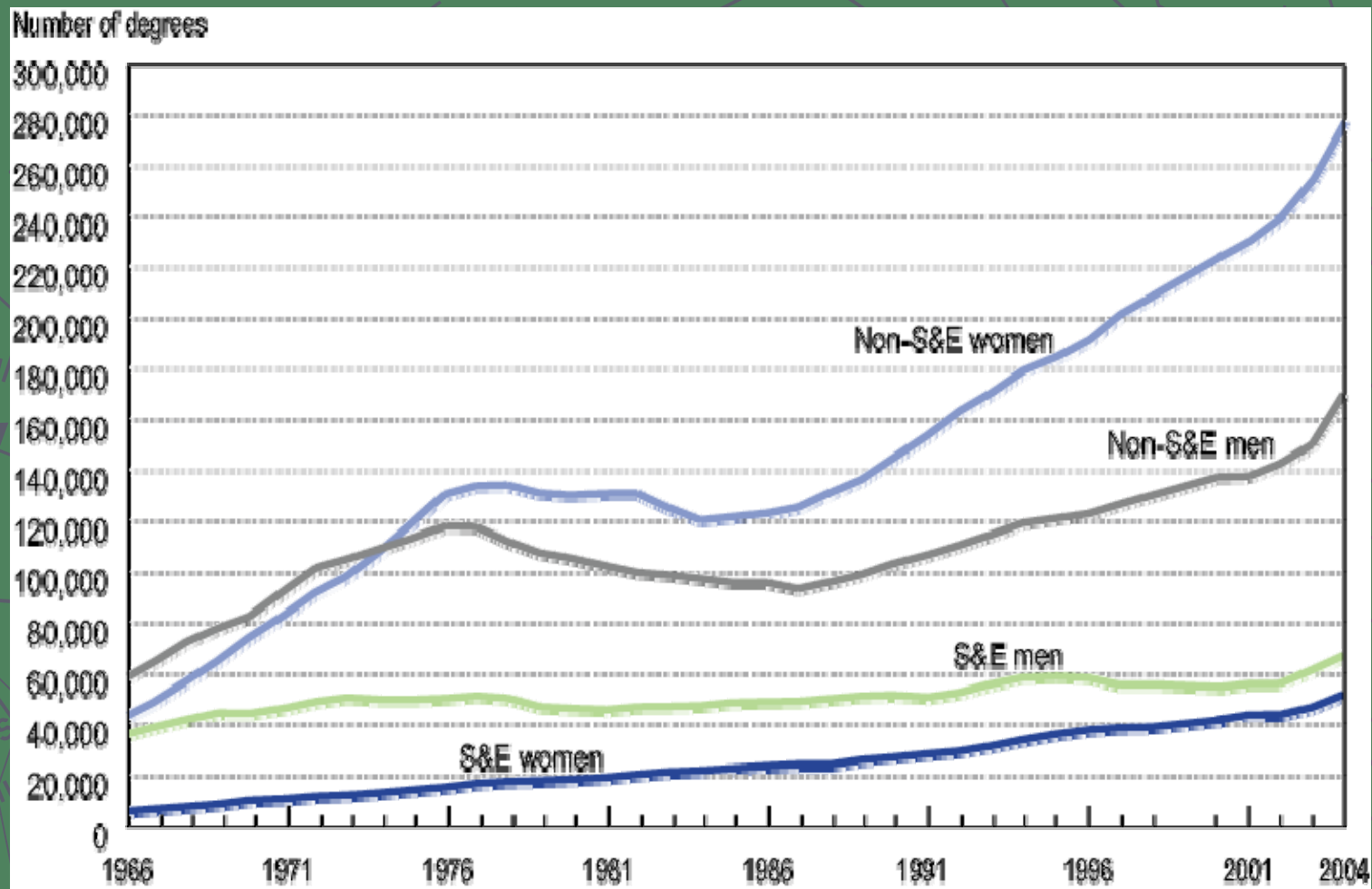
¹Includes other fields of study not shown separately.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred Survey;" and Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C:01), 2000-01.

Bachelor's degrees awarded in S&E and non-S&E fields, by sex: 1966–2004



Master's degrees awarded in S&E and non-S&E fields, by sex: 1966–2004



Graduate School

- Overall the number of women earning doctoral degrees in all fields rose between 1966 and 2004.
- By 2004, women earned 44 percent of S&E and 60 percent of non-S&E doctoral degrees to U.S.
- Women made up 74 percent of graduate school enrollment in psychology, 56 percent in biological sciences, and 53 percent in social sciences (2004).
- Women accounted for 22 percent of graduate students in engineering and 27 percent of graduate students in computer sciences, and approximately 30–45 percent of the graduate students in most other science fields (2004).

➤ SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Graduate Students and Post doctorates in Science and Engineering, 1994 and 2004.

How does educational
achievement translate into
employment success?

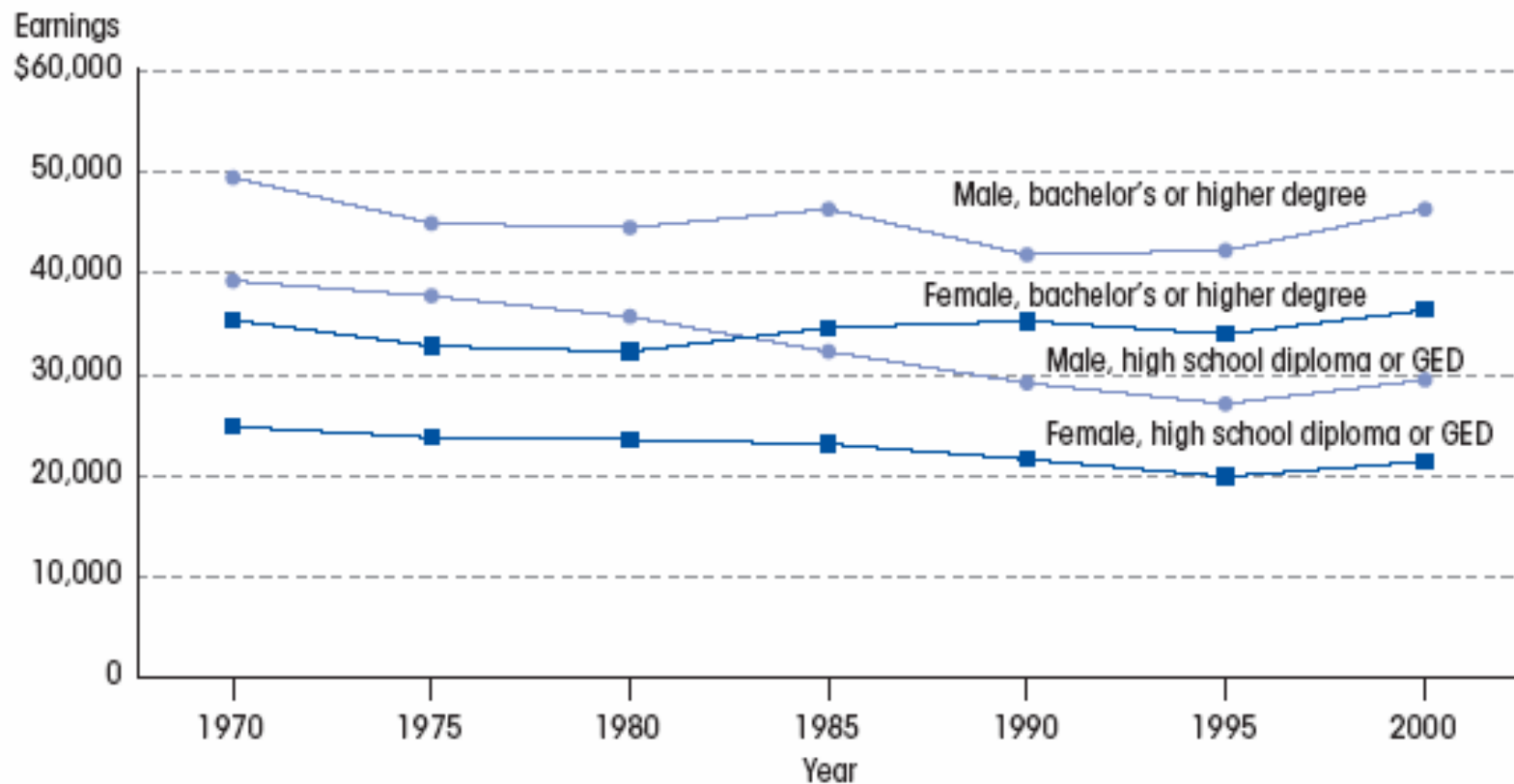


Employment of Women

- ▶ Women 25 years and older make 0.79 to every dollar a man earn
- ▶ Women with at least a High School Diploma 0.76
- ▶ Women with a Bachelors degree or higher 0.74 to every dollar a man earns

(US Dept of Labor 2003)

Median annual earnings (in constant 2000 US dollars) of full-time year-round wage and salary workers 25 – 34 with HS diploma or GED, or bachelors' or higher degree, by sex



SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys (CPS), various years, unpublished data.

Employed Scientists by highest degree and sex

TABLE H-5. Employed scientists and engineers, by occupation, highest degree level, and sex: 2003

Occupation	All degrees			Bachelor's			Master's			Doctorate		
	Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
All occupations	18,019,400	7,582,200	10,437,200	10,484,300	4,575,300	5,909,100	4,976,800	2,221,900	2,754,900	883,700	256,900	626,900
S&E occupations	4,927,500	1,330,500	3,597,100	2,799,200	696,000	2,103,200	1,453,300	437,000	1,016,200	581,800	162,200	419,600

Barriers to Women Advancing in S&T Careers

- ▶ NSF Survey of women ADVANCE Awardees (an award recognizing individuals for their work in S&T fields) obstacles identified :
 - ▶ Effective balance between work and family
 - ▶ Discrimination - women felt they had to work harder to achieve equal amount of status
 - ▶ Lack of mentoring
 - ▶ In 1995, only 10% of tenured professors in science and technology were women.
- ▶ Women Leaders in S&T: Kuwait Conference - Jan. 2007
 - ▶ 150 Mostly Arab women & US women participants
 - ▶ Same barriers discussed

Expected Outcomes of JCM

- ▶ Establishing formal dialogue exchanges between Chilean women scientists and US scientists, particularly those working in government.
- ▶ Dependent on Funding - formalize exchange program between US women scientists and Chilean women scientists.